Part 52
COL Application Issues

Public Meeting with NRC
November 9, 2004

NEI

EP ITAAC

- Options for adapting 50.47(d) intent to pre-fuel load ITAAC process
  - NEI's Sept. 15 proposal
  - Other
- Revisit need for ITAAC on submittal of detailed EP procedures required by Part 50, Appendix E.V
- Credit for biennial exercise for new units at existing sites

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Programmatic ITAAC

- Implementation of Commission SRM on SECY-04-0032

COLA Discussion Topics

- Overview of NEI 04-01 and "base case'
- Plant-specific design info and ITAAC
- Reliability Assurance Programs and QA
- Development of plant-specific tech specs
- FSAR Chapter 19 and the plant-specific PRA
- FSAR Ch. 18 (Human Factors Engineering)
- Treatment of operational programs
- NRC reviewer guidance

NEI 04-0-1 Objectives

- Provide guidance to COL applicants
  - COL interface with DC and ESP
  - Highlight COL applicant "delta" scope
- Provide vehicle for resolution of COLA issues with NRC
  - Preliminary discussions Nov. 9-10, 2004
  - Draft guidance for NRC review in December
  - Refine guidance based on detailed discussion & comments, and seek NRC endorsement in 2005

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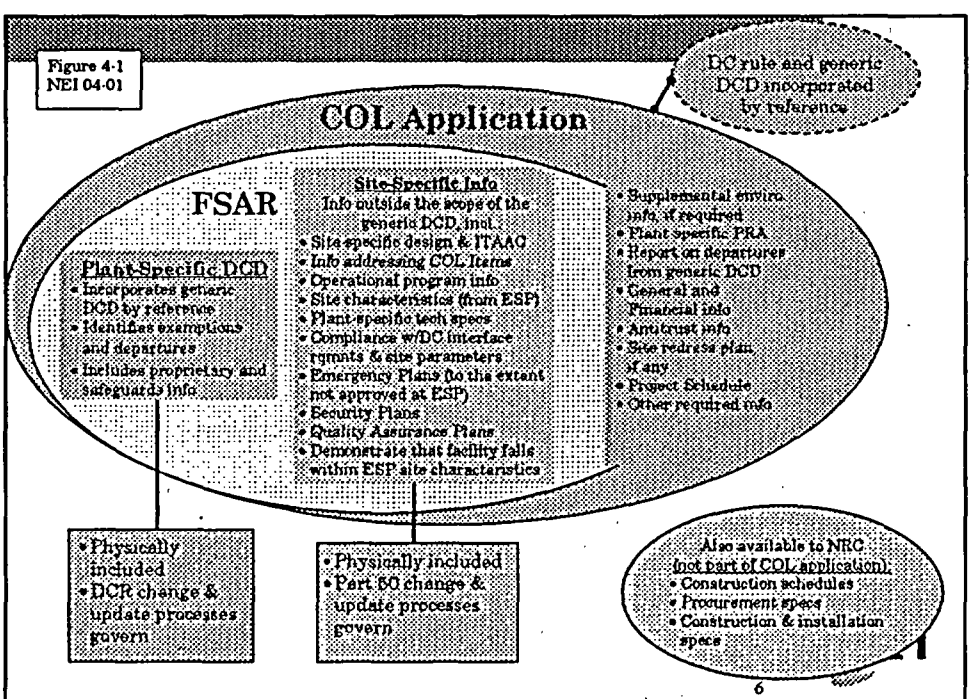

DRAFT REVISION B

Industry Guidance for Combined License Applicants Under 10 CFR Part 52

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APPENDICIES 194

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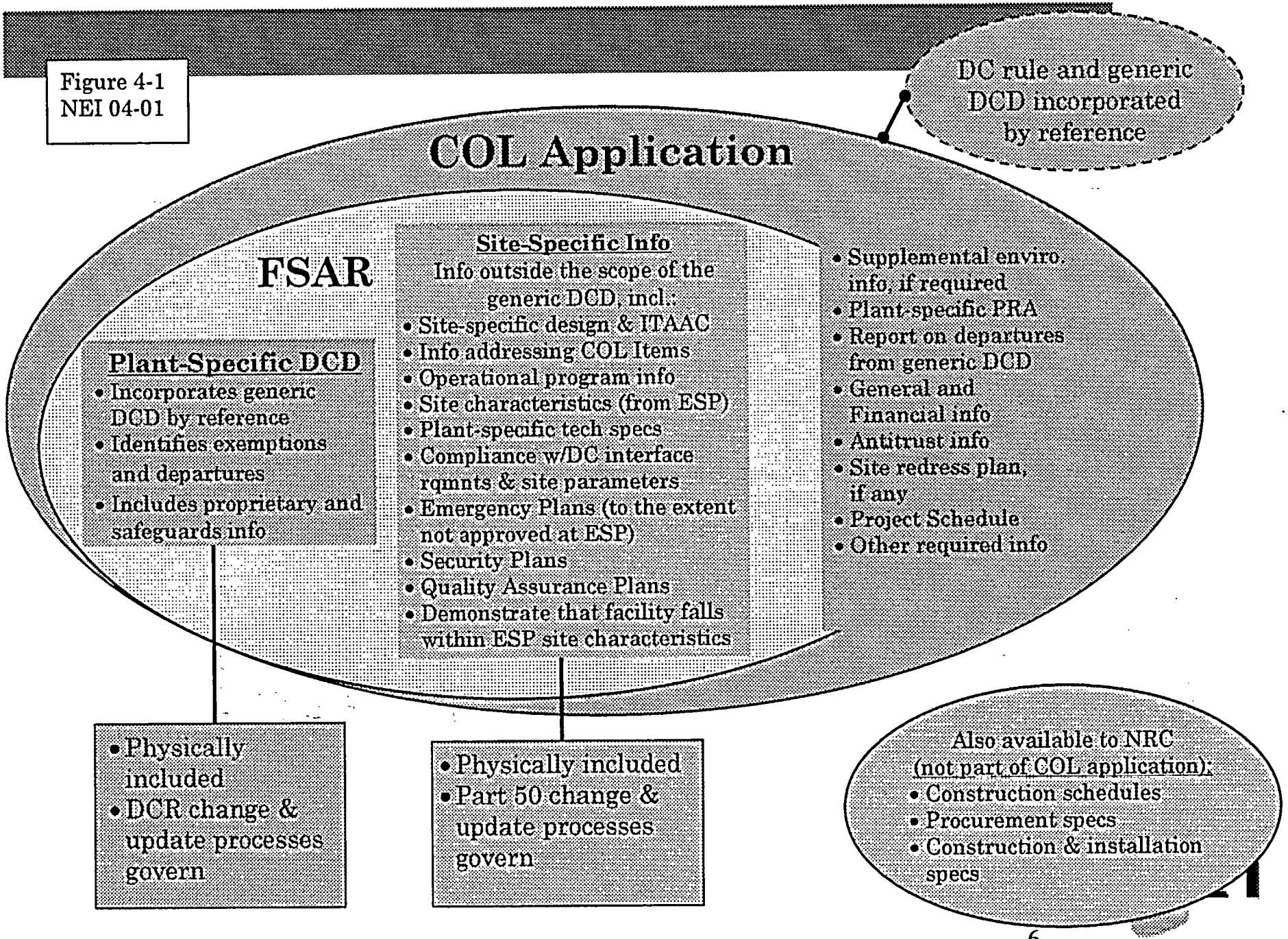
D. Sample Combined License (NRC findings, conditions, etc.)
E. Reserved
F. COLA Outline – AP1000
G. COLA Outline – ABWR
H. Environmental Report

Figure 4-1
NEI 04-01



Site-Specific Design Info and ITAAC

- COLA FSAR will provide site-specific design info beyond the scope of a referenced design certification
- Total scope of COLA design info (standard plus site-specific) will be consistent with SRP and recent FSARs
- Level of detail for site-specific design information will be consistent with
  - generic DCD (e.g., commensurate with safety significance)
  - analogous information approved by the NRC for current FSARs
- Site-specific design ITAAC will
  - look like analogous design certification ITAAC
  - be consistent with ITAAC general principles, eg, focus on salient design and performance criteria
- NEI 04-01 will provide criteria for defining the required scope of plant-specific design ITAAC

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Criteria for Site-Specific Design ITAAC

- Provide site-specific design ITAAC only to address "significant interface requirements" identified in Tier 1
  - ABWR examples
    - UHS
    - Off-site power
    - Others
  - Null set for AP1000

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Reliability Assurance Programs and QA

- COL applicant will implement DRAP to support detailed engineering and procurement
- Licensee programs, e.g., QA, Maintenance and Configuration Control, will constitute ORAP, consistent with draft SRP 17.4

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Plant-Specific Technical Specifications (PSTS)

- Use of exemption process for departures from PSTS
- Clarification regarding statement 9.b on page 15 of draft SRP 14.3: "Technical specifications are required to be in the DCD but are treated like conceptual design information..."
- Overview planned NEI 04-01 guidance on developing PSTS based on generic DCD TS, eg, to reflect
  - actual system setpoints
  - risk-informed improvements
  - conformance with 10 CFR 50.36 criteria
  - other updates
- Expected completion of certain aspects of PSTS post-COL
- Submittal of PSTS supporting documents post-COLA, eg, COLR, ODCM, etc.

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Treatment of Operational Programs

- Expect no PITAAC (except EP)
- Scope of programs to be described in the FSAR will be consistent with NRC FSAR content regulations, the SRP, and recent FSARs
- Descriptions of other required programs to be maintained on site
- Programs to be described at a functional level consistent with May 14, 2004, Commission SRM on PITAAC
  - Equivalent in substance to recent FSARs, including description of how programs conform or will conform with NRC requirements, the SRP and applicable regulatory guidance
  - Including information on the timing of program implementation
- NEI 04-01 to provide examples of operational program descriptions

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Chapter 19 and PRA

NRC - NEI Meeting

November 9, 2004

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Chapter 19

- Considering departing from generic DCD form and content for COLA FSAR Ch. 19
  - Different purpose/objectives for COL vs. design certification
  - More consistent with operating plant FSARs, which do not describe their PRAs
  - Emerging proprietary/safeguards concerns about PRA info
  - COLA will reference generic DCD, including Ch.19

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Possible Chapter 19 Format and Content

- 19.1 Introduction
  - 19.1.1 Objectives
  - 19.1.2 Format and Content of Section 19
- 19.2 Scope and Approach to development of plant-specific PRA
  - 19.2.1 Scope
  - 19.2.2 Approach
- 19.3 COLA Item Resolution
- 19.4 Results
  - 19.4.1 Results of Comparison of plant-specific PRA with design PRA
  - 19.4.2 Reference to insights from the design certification PRA
  - 19.4.3 Insights from plant-specific PRA
  - 19.4.4 Other Results
- 19.5 Support of plant programs, e.g. for D-RAP, MR, Tech Specs, HFE, etc.,
- 19.6 Maintaining the Plant-Specific PRA
- 19.7 References

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AP1000 Chapter 19 COL Items

- Baseline vs. As-built PRA Review
- As-Built SSC HCLPF Comparison to Seismic Margin Evaluation
- Internal Fire and Flood Analyses Comparison
- Develop and Implement SAMGs
- Equipment Survivability (Thermal lag assessment)

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Plant-Specific PRA for COLA

- Address Chapter 19 COL Items
- Retain, rather than submit, plant-specific PRA info at COL
- Information addressing COL Items will be subject to NRC review and hearing
- Maintain and refine plant-specific PRA post-COL to support plant operations
- Approach would comply with requirement proposed in 2003 NOPR for updated plant-specific PRA

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Plant-Specific PRA (cont.)

- New COLA requirement proposed in 2003 NOPR:

  "An application referencing a certified design must include [reference] a plant-specific PRA that uses the design-specific PRA and is updated to account for site-specific design information and any design changes."

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FSAR Chapter 18
Human Factors Engineering

November 9, 2004

Robert B. Fuld

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COLA Guidance for HFE

- AP1000 example as basis
- Cover 12 elements of NUREG-0711
- Place in 3 categories of closure vs. COLA
- Target ITAAC (DAC) that can be completed for COLA
- Develop methods, tools, results to support closure (e.g., Task Analysis)
- Reduce licensing risk

Expectations on 12 Elements

- Closed in Design Cert:
  - HFE Program Plan
  - Operating Experience Review
  - Functional Requirements Analysis/Allocation
- Close-able at COLA:
  - Task Analysis
  - Staffing Analysis
  - Human Reliability Analysis
  - Procedure Development
  - Training Program Development
  - Human Performance Monitoring Program

Expectation for 12 Elements (cont.)

- Post-COL
  - Human-system Interface Design
  - HF Verification & Validation
  - Design Implementation (issue closure)
- NEI 04-01 will provide guidance on:
  - Form and content of Ch. 18 info
  - Addressing COL Items
  - Completion of ITAAC at COL

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NRC Review Guidance for COLA

- Mixed bag of outdated, draft and recently revised SRPs
- Bulk of SRP does not reflect the differences between requirements for COLA under Part 52 versus requirements under the old Part 50 process
- Compliance with 10 CFR 50.34(h) is problematic due to SRP condition and DC/ESP interfaces
- SRP update and COLA review standard urgently needed

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